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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/736,341	12/15/2000	Michihiro Izumi	35.G2696	8630

5514 7590 02/26/2004

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER	
NGUYEN, NAM V	
ART UNIT	**PAPER NUMBER**
2635	7

DATE MAILED: 02/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/736,341	IZUMI, MICHIHIRO	
	Examiner	Art Unit	
	Nam V Nguyen	2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 October 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13,15 and 16* is/are rejected.

7)☒ Claim(s) *14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This communication is in response to applicant's response to an Amendment A which is filed October 31, 2003.

An amendment to the claims 1, 3, 5, 11 and 15-16 has been entered and made of record in the application of Izumi for a "communication apparatus having wired communication function and wireless communication function, and control method therefore" filed December 15, 2000.

Claims 1-16 are pending.

Response to Arguments

Applicant's amendment and arguments with respect to claims 1-16, filed October 31, 2003 have been fully considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Liebenow et al. (US# 6,131,136).

Referring to claims 1 and 15, Liebenow et al. disclose a communication apparatus (100) (i.e. a modem) having a wired communication function, using a wired communication line (105) (i.e. a wire-based communications network), and a wireless communication function, using a wireless communication link (107) (i.e. a wireless communications network) (column 1 lines 36 to 59; see Figure 1), said communication apparatus (100) comprising:

Determining means (115) (i.e. a detection circuitry) for determining a connecting condition of the wired communication line (105) (column 3 lines 13 to 30; see Figure 1);

Input means (120) (i.e. a computer) for a user to use in inputting transmission data (i.e. computer data) (column 2 lines 60 to 62); and

Communication means (101) (i.e. a mode selection circuitry) for selectively transmitting, in accordance with the determination by said determining means (115), the transmission data inputted by said input means (120) via one of the wired communication line (105) and the wireless communication link (107) (column 2 lines 50 to 60; column 3 line 31 to 64; see Figures 1-4).

Referring to claim 2, Liebenow et al. disclose a communication apparatus according to claim 1, wherein determining means (115) performs the determination based on whether synchronization with one of layer 1 and layer 2 of the wired communication line (105) can be established (column 3 line 13 to 64; see Figures 1-2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-4, 6, 11, 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liebenow et al. (US# 6,131,136) in view of Charbonnier et al. (US# 5,684,608).

Referring to claims 3 and 16, Liebenow et al. disclose a method and a communication apparatus, to the extent as claimed with respect to claim 1 above, however, Liebenow et al. did not explicitly disclose a communication apparatus having a first mode for performing wireless communication under the control of a first wireless communication apparatus and a second mode for controlling so that a second wireless communication apparatus performs wireless communication.

In the same field of endeavor of radio link and wired communication system, Charbonnier et al. teach that communication apparatus (9) (i.e. a cordless facsimile machine) having a first mode (i.e. a handset mode) for performing wireless communication under the control of a first wireless communication apparatus (3) (i.e. the routing unit) and a second mode (i.e. a base mode) for controlling so that a second wireless communication apparatus (12) performs wireless communication (column 2 lines 14 to 44; see Figure 1-3) in order exhibits numerous advantages in installation of the system.

One of ordinary skilled in the art recognizes the need to have a facsimile and cordless phone system has a reversible nature or mode or dual mode of Charbonnier et al. in an automatic switching function of a dual mode modem of Liebenow et al. because Liebenow et al. suggest it is desired to provide that a dual mode modem automatically switches between a wireless and wire-based communication des using mode selection circuitry (column 1 lines 36 to 59; see Figure 1) and Charbonnier et al. teach that a cordless communication facsimile system has communicate in handset mode or in base mode (column 1 lines 36 to 48; column 2 lines 20 to 49; see Figures 1-3) in order to have great flexibility. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was to have a facsimile and cordless phone system has a reversible nature or mode or dual mode of Charbonnier et al. in an automatic switching function of a dual mode modem of Liebenow et al. with the motivation for doing so would have been to provide an automatically switching between modes in a dual mode modem apparatus in order to have a great flexibility and very efficient communication apparatus.

Referring to claim 4, Liebenow et al. in view of Charbonnier et al. disclose a communication apparatus according to claim 3, Liebenow et al. disclose wherein determining means (115) performs the determination based on whether synchronization with one of layer 1 and layer 2 of the wired communication line (105) can be established (column 3 line 13 to 64; see Figures 1-2).

Referring to claim 6, Liebenow et al. in view of Charbonnier et al. disclose a communication apparatus according to claim 3, Liebenow et al. disclose wherein said determining means (115) performs the determination when power (i.e. a land-line phone cord plug into a phone) is supplied to said communication apparatus (100) (column 3 lines 40 to 57; see Figure 2).

Referring to claim 11, Liebenow et al. in view of Charbonnier et al. disclose a communication apparatus according to claim 3, Charbonnier et al. disclose wherein the first mode (i.e. handset mode) is a mode in which communication through the wired communication line is performed through the first wireless communication apparatus (3) (column 2 lines 28 to 35; see Figure 3); and

The second mode (i.e. a base mode) is a mode in which relaying the processing (14) (i.e. a switch) is performed to enable the second wireless communication apparatus (12) (i.e. cordless telephone instrument) to perform communication through the wired communication line (10) (column 2 lines 14 to 27; lines 36 to 58; see Figure 2).

Referring to claim 13, Liebenow et al. in view of Charbonnier et al. disclose a communication apparatus according to claim 3, Liebenow et al. disclose wherein said communication apparatus (100) performs digital wireless communication and digital wired communication (column 2 line 50 to 62; see Figure 1).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liebenow et al. (US# 6,131,136) in view of Charbonnier et al. (US# 5,684,608) as applied to claim 3, and in further view of Hayashi (US# 5,479,485).

Referring to claim 12, Liebenow et al. in view of Charbonnier et al. disclose a communication apparatus according to claim 3, however, Liebenow et al. in view of Charbonnier et al. did not explicitly disclose wherein said control means converts, in accordance with the switched mode, a received digital signal into one of a digital signal using another encoding system and an analog signal.

In the same field of endeavor of dual mode communication apparatus, Hayashi teaches that wherein said control means (17) converts, in accordance with the switched mode, a received digital signal (i.e. a rectangular wave signal) into one of a digital signal using another encoding system (i.e. CPU) and an analog signal (column 1 lines 20 to 30).

At the time the invention, it would have been obvious to a person of ordinary skill in the art to recognize the need for control means converts a received digital signal into one of a digital signal in a dual mode modem for selecting between wireless and wire-based of Liebenow et al. in view of Charbonnier et al. because converting to digital signal result would improve the reliable communication and accurate information that has been shown to be desirable in the dual mode modem of Liebenow et al. in view of Charbonnier et al.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liebenow et al. (US# 6,131,136) in view of Charbonnier et al. (US# 5,479,485) as applied to claim 3 above, and in view of Dacus et al. (US# 6,223,061).

Referring to claim 5, Liebenow et al. in view of Charbonnier et al. disclose a communication apparatus according to claim 3, however, Liebenow et al. in view of Charbonnier et al. did not explicitly disclose further comprising: generating means for generating a clock for performing communication through a wireless communication link, wherein said control means controls, in accordance with the determination by said determining means, to perform one of communication in accordance with a clock extracted from the wired communication line and communication in accordance with the clock generated by said generating means

In the same field of endeavor of radio communication system, Dacus et al. teach that generating means (46) (i.e. XCO) for generating a clock for performing communication through a wireless communication link (38) (column 7 lines 48 to column 8 lines 54; see Figure 2);

Wherein said control means (5) (i.e. frequency control input) controls, in accordance with the determination by said determining means (10) (i.e. detector), to perform one of communication in accordance with a clock extracted from the wired communication line and communication in accordance with the clock generated by said generating means (46) (column 7 lines 48 to column 8 lines 54; see Figures 2-4) in order to obtain the best transmission strategy for transmitting a communication signal.

One of ordinary skilled in the art recognizes the need to add a TXCO to generate a clock that has very high accurate frequency control output in the frequency synthesizing means of

Dacus et al. in a modem data processing circuitry of Liebenow et al. in view of Charbonnier et al. because Liebenow et al. suggest it is desired to provide that a modem processing circuitry select the input and output data lines from the wired interface to couple to the input and output data lines (column 3 lines 40 to 57; see Figure 2) and Dacus et al. teach that a TXCO connect to a phase detector to generate an output signal which drives transmitting antenna (column 8 lines 34 to 54; see Figures 2-4) in order to have a reliable transmitting signal. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to add a TXCO to generate a clock that has very high accurate frequency control output in the frequency synthesizing means of Dacus et al. in a modem data processing circuitry of Liebenow et al. in view of Charbonnier et al. with the motivation for doing so would have been to provide a capacity to set the range of frequencies by the microprocessor in order to have a highly accurate frequency output.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liebenow et al. (US# 6,131,136) in view of Charbonnier et al. (US# 5,479,485) as applied to claim 3 above, and in view of Allmond et al. (US# 6,072,803).

Referring to claims 7-8, Liebenow et al. in view of Charbonnier et al. disclose a communication apparatus according to claim 3, however, Liebenow et al. in view of Charbonnier et al. did not explicitly disclose wherein said determining means continuously or periodically performs the determination.

In the same field of endeavor of radio communication system, Allmond et al. teach that determining means (402) continuously or periodically performs the determination (column 15

line 66 to column 16 line 62; see Figures 4 and 6) in order to monitor the corresponding link signals until the corresponding link signal indicates that link pulses are detected.

At the time the invention, it would have been obvious to a person of ordinary skill in the art to recognize the need to add that the processor continuously or periodically perform the determination of Allmond et al. in a modem data processing circuitry of Liebenow et al. in view of Charbonnier et al. because continuously or periodically performs the determination would improve the reliable communication and accurate connection of the communication signal that has been shown to be desirable in the facsimile apparatus of Liebenow et al. in view of Charbonnier et al..

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liebenow et al. (US# 6,131,136) in view of Charbonnier et al. (US# 5,479,485) as applied to claim 3 above, and in view of Yamashita (US# 5,517,552).

Referring to claims 9 and 10, Liebenow et al. in view of Charbonnier et al. disclose a communication apparatus according to claim 3, however, Liebenow et al. in view of Charbonnier et al. did not explicitly disclose wherein said control means controls so as to perform display in accordance with the determination by said determination means and wherein said control means so as to display whether to perform one of the communication in the first mode and the communication in the second mode.

In the same field of endeavor of facsimile apparatus with cordless phone system, Yamashita teaches that control means (11) (i.e. operational portion) controls so as to perform display (11a) (i.e. a liquid crystal display) in accordance with the determination by said

determination means (6) (i.e. CPU) and to display whether to perform one of the communication in the first mode (i.e. facsimile transmission operation mode) and the communication in the second mode (i.e. operation in response to telephone call by cordless phone) (column 4 lines 12 to 37; column 8 lines 12 to 30; column 8 line 55 to column 9 line 15; see Figure 2) in order to inform the user the status of the communication until the communication has finished.

At the time the invention, it would have been obvious to a person of ordinary skill in the art to recognize the need to add control means to perform display and to display the cordless phone is currently used of Yamashita in a modem data processing circuitry of Liebenow et al. because adding the control means to perform display to inform the user of that the communication status would improve a communication network that has been shown to be desirable in a dual mode modem of Liebenow et al. in view of Charbonnier et al.

Allowable Subject Matter

Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Referring to claim 14, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations that a communication apparatus further comprising:

A digital/digital code converter for performing digital/digital code conversion of data received from a digital wireless link and for performing digital/digital reverse code conversion of data received from the wired communication line;

An analog/digital converter for performing digital/analog conversion of the data received from the digital wireless link and for performing analog/digital conversion of data output from a data processor for processing communication data; and

A selector switch for switching to interconnect the digital/digital code converter and the wired communication line when said communication apparatus and the wired communication line are connected to each other or to interconnect the digital/digital code converter and the analog/digital converter when said communication apparatus and the wired communication line are not connected to each other.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam V Nguyen whose telephone number is 703-305-3867. The examiner can normally be reached on Mon-Fri, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703-305-4704. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Nam Nguyen
February 17, 2004

MICHAEL HORABIK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600